

Department of Health Issues Recommendations To Address Continuing Vaccine Shortages

One of the greatest public health achievements of the last 100 years is vaccination to prevent illness, disability, and death. Measles, diphtheria, and pertussis are among childhood diseases controlled through vaccination, including requirements for school entry vaccination guided by national recommendations. Since mid-2001, however, many childhood vaccines have been in short supply throughout the United States. This article reviews key vaccine preventable diseases, the status of vaccine supplies, and recommendations.

Vaccine Preventable Diseases

Despite the advances of the last century, diseases preventable by vaccination persist in Washington. The most common such condition is chickenpox, for which a vaccine was licensed in the United States in 1995. Pertussis (whooping cough) is the second most common condition, responsible for hundreds of cases annually. Over the past six years, three pertussis-related infant deaths have been reported in Washington State, one each year in 1996, 1998, and 2000. Influenza, hepatitis A, and hepatitis B infections are common, and cases of hepatitis A have been transmitted in child care settings.

Limited numbers of measles cases are reported almost every year in Washington. Small outbreaks of several dozen measles cases occurred in 1995, 1996, 2000, and 2001. Even less common are infections of rubella and invasive *Haemophilus influenzae*, with typically fewer than 10 cases annually. In 2000 a congenital rubella case due to out-of-state exposure was identified in Washington. Most other vaccine preventable conditions are extremely rare or non-existent in the United States.

Vaccine Shortages

Factors contributing to the temporary nationwide shortages of many childhood vaccines include fewer manufacturers producing some vaccines, changes in certain manufacturing procedures, production problems, and unanticipated levels of demand.

For example, tetanus-containing vaccines such as diphtheria-tetanus-acellular pertussis (DTaP) and tetanus-diphtheria (Td) are in short supply because one of the two national manufacturers of the tetanus component discontinued production in 2000. The tetanus component requires about 11 months to produce so is the limiting factor in these vaccines. In addition, the recent removal of Thimerosal-containing vaccines from the market and a revamping of the production process exacerbated shortages.

For childhood pneumococcal conjugate vaccine (PCV-7), the demand since it was licensed in 2000 has far exceeded anticipated need and the single manufacturer was not able to produce sufficient supplies. Manufacturing issues have contributed to shortages of MMR (measles-mumps-rubella) and chickenpox vaccines.

As a Universal Vaccine state, Washington supplies recommended vaccines for all the state's children. During the shortages, vaccine is being distributed proportionate to the size of each county's birth cohort.

Current Recommendations for DTaP

Given the current vaccine shortages and in the interest of public health, Washington's state health officer, Dr. Maxine Hayes, asked providers to participate in vaccine conservation efforts for DTaP. To ensure equitable vaccine supply throughout

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the state, providers are asked to take the following actions:

- Defer the fourth dose of DTaP except in outbreak situations.
- If deferring the fourth DTaP dose still does not ensure sufficient supplies to vaccinate infants with three DTaP doses, then individual providers may choose to defer the fifth DTaP dose.
- In areas with severe DTaP shortages, local public health officials may recommend community-wide deferral of the fifth dose.
- In a disease outbreak situation, local health officials can enforce practices they deem necessary to control the outbreak. During a pertussis outbreak, children who received their third dose six months or more before exposure should be given a fourth dose. Children under 7 years who received four doses of DTaP should be given a booster dose unless a dose has been given within the last three years. These recommendations clarify the information in the March issue of *epiTRENDS*.
- Providers on CHILD Profile will continue to receive reminders of doses missed on the routine immunization schedule.
- Once vaccines are readily available, providers should recall children for whom doses were deferred.

Additional Recommendations

Although certain vaccines will continue to be in short supply until the end of the year, some shortages appear to be resolving. In the interim, the national Advisory Committee on Immunization Practices (ACIP) issued recommendations for use of the available supplies.

The Department of Health Immunization Program (DOH/IP) continues to moni-

tor the ACIP recommendations related to vaccination practices during the shortages. Below is a listing, by antigen, for each childhood vaccine of concern at this time:

- Supply demands for MMR in Washington State have not been a problem and supplies are expected to remain adequate.
- Varicella supply is reduced, but small orders are received on a regular schedule. The duration of the shortage is unknown, but resolution is expected before the end of the year.
- DTaP supplies remain limited and shortages are expected to continue through December 2002. The recommendation for statewide deferral of the fourth DTaP dose remains in effect. Some counties with extreme shortages have recommended community-wide deferral of both the fourth and fifth doses of DTaP.
- The PCV-7 shortage also is expected to continue through December 2002, although small orders are being received. ACIP recommendations for deferral are still in effect.
- Tetanus-diphtheria booster doses are still in short supply, and restricted use still applies. Emergency rooms, hospitals, and public providers are receiving vaccine only for wound management. By June, manufacturers may begin shipping Td to private providers. Adequate supplies are expected during the summer and will allow a return to routine booster doses.

School and Child Care Entry Requirements

In view of these shortages, the State Board of Health (SBOH) and DOH are proposing an emergency language change related to school entry vaccination requirements. Washington Administrative Code 246-100-166(5) addresses vaccination recommendations for children in child care and school and stipulates that vaccination must be completed within 30 days of enrollment. The proposed change would extend this conditional status to 120 days in the event of a specific vaccine shortage.

At its June 12 meeting, the State Board of Health will consider adopting an emergency rule on immunization requirements for school and child care attendance. The plan is to add and approve emergency language effective for four months. Concurrently, DOH and SBOH will be working on permanent language to be reviewed and adopted at the October SBOH meeting.

For More Information

Information about vaccines, including updates about shortages, is available at: <http://www.doh.wa.gov/cfh/Immunize/>

The Hepatitis A Monograph: A Guide for Washington State Health Care Providers

This new monograph covers the clinical features of hepatitis A, lab diagnosis, epidemiology, and prevention strategies. A self-assessment examination is available for providers who want to obtain continuing medical education credits. The Department of Health Immunization Program developed the monograph in conjunction with the recommendations of the Washington State Vaccine Advisory Committee. Local health jurisdictions and the Immunization Action Coalition of Washington are assisting with distribution. For more information, contact Trang Kuss, 360-236-3555 or trang.kuss@doh.wa.gov

Monthly Surveillance Data by County

April 2002* – Washington State Department of Health

County	E. coli O157:H7	Salmonella	Shigella	Hepatitis A	Hepatitis B	Non-A, Non-B Hepatitis	Meningococcal Disease	Pertussis	Tuberculosis	Chlamydia	Gonorrhea	AIDS	Pesticides†	Lead\$#
Adams	0	0	0	0	0	0	0	0	0	3	0	0	1	2/79
Asotin	0	0	0	0	0	0	0	0	0	3	0	0	0	0/0
Benton	0	0	0	0	0	0	0	0	1	29	2	1	3	0/0
Chelan	0	1	0	0	0	0	0	0	0	21	1	0	1	0/21
Clallam	0	1	0	0	0	0	0	0	0	13	1	0	0	0/0
Clark	0	2	1	1	0	0	0	2	0	49	16	3	2	0/0
Columbia	0	0	0	0	0	0	0	0	0	0	0	0	1	0/0
Cowlitz	0	1	0	0	1	0	0	6	1	0	0	1	0	0/47
Douglas	0	0	0	0	0	0	0	0	0	7	0	0	1	0/0
Ferry	0	0	0	0	0	0	0	0	0	2	0	0	0	0/0
Franklin	0	0	0	0	0	0	0	0	0	20	0	0	1	1/65
Garfield	0	0	0	0	0	0	0	0	0	0	0	0	0	0/0
Grant	0	0	0	1	0	0	0	0	0	12	0	0	1	2/165
Grays Harbor	0	2	0	0	0	0	0	0	1	15	1	0	0	0/#
Island	0	0	0	0	0	0	0	0	0	19	2	0	1	0/#
Jefferson	0	0	0	0	0	0	0	0	0	2	0	0	0	0/#
King	0	17	2	4	1	0	5	5	13	323	107	14	1	5/190
Kitsap	0	0	0	0	0	0	0	0	0	37	4	2	0	0/7
Kittitas	0	2	0	0	0	0	0	0	0	2	0	0	0	0/#
Klickitat	0	0	0	0	0	0	0	0	0	1	0	0	0	0/0
Lewis	0	1	0	1	0	1	0	0	0	17	1	0	0	0/0
Lincoln	0	0	0	0	0	0	0	0	0	0	0	0	0	0/0
Mason	0	0	0	0	0	0	0	0	0	9	0	0	0	0/0
Okanogan	0	0	0	0	0	0	0	0	0	6	0	0	1	0/#
Pacific	0	0	0	0	0	0	0	0	0	5	0	0	0	0/0
Pend Oreille	0	0	0	0	0	0	0	0	0	0	0	0	1	0/0
Pierce	0	5	1	4	0	0	0	13	1	216	43	1	0	0/15
San Juan	0	0	0	0	0	0	0	0	0	0	0	0	0	0/0
Skagit	0	1	0	0	0	0	2	0	0	17	0	0	1	0/18
Skamania	0	0	0	0	0	0	0	0	0	0	0	0	0	0/0
Snohomish	0	3	0	2	1	0	1	0	1	91	12	2	0	0/16
Spokane	1	2	0	0	1	0	1	0	0	67	4	1	0	0/17
Stevens	0	0	0	0	0	0	0	0	0	5	1	0	0	0/0
Thurston	0	2	0	0	1	0	0	0	0	58	3	1	0	0/8
Wahkiakum	0	0	0	0	0	0	0	0	0	0	0	0	0	0/0
Walla Walla	0	0	0	0	0	0	0	0	1	9	0	0	0	2/20
Whatcom	0	0	0	0	1	0	1	2	0	23	1	0	0	1/12
Whitman	0	0	0	0	0	0	1	0	0	11	1	0	0	0/0
Yakima	0	4	1	0	0	0	0	3	0	76	6	0	5	1/19
Unknown														0/0

Current Month	1	44	5	13	6	1	11	31	19	1168	206	26	21	14/711
April 2001	2	30	12	5	11	0	11	3	26	1041	233	42	14	9/429
2002 to date	7	85	20	51	17	4	26	110	74	4653	960	161	45	30/1537
2001 to date	11	106	56	24	31	9	33	29	63	4482	1002	197	26	41/1466

* Data are provisional based on reports received as of April 30, unless otherwise noted.

† Unconfirmed reports of illness associated with pesticide exposure.

\$# Number of elevated tests (data include unconfirmed reports) / total tests performed (not number of children tested); number of tests per county indicates county of health care provider, not county of residence for children tested; # means fewer than 5 tests performed, number omitted for confidentiality reasons.



WWW Access Tips

The web site for the National Immunization Program of the Centers for Disease Control and Prevention is:
<http://www.cdc.gov/nip>

epiTRENDS online

[http://www.doh.wa.gov/
Publicat/EpiTrends/01-02_
EpiTrends/2002_trend.htm](http://www.doh.wa.gov/Publicat/EpiTrends/01-02_EpiTrends/2002_trend.htm)



AVOID MEDICATION ERRORS

The Washington State Legislature asked the Department of Health to develop recommendations to help practitioners avoid medication errors. The Department developed the following recommendations in consultation with the regulatory boards and commissions, professional associations and Washington State hospitals.

- **Include a notation of purpose (e.g., for cough) on all prescriptions, unless clearly inappropriate.**
- **Avoid abbreviations for non-standard drug names on prescriptions and drug orders.**
- **For children under 14 years of age, always record the child's age (and weight when appropriate) on prescriptions.**
- **Include a notation of purpose on the prescription label to assist the patient.**
- **Use standard terminology.**
 - o Always use a zero before a decimal point (0.1 mg)
 - o Use the metric system
 - o Never abbreviate "microgram"
 - o Spell out "units" rather than using "U"
- **Write or print legibly** – Consider using electronic entry, hand-held computer or other similar technology to increase prescription legibility.
- **Talk about drug interactions with your patients.**
 - o Encourage patients to carry a list of all their prescribed medications, over-the-counter drugs and herbal supplements.
 - o Periodically review the list with your patient.

The 2000 Medication Errors Report and Recommendations is available at:
<http://www.doh.wa.gov/MedErrors/document/Reportfinal.DOC>

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U.S. Postage
PAID
Washington State
Dept. of Printing

epiTRENDS
P.O. Box 47812
Olympia, WA 98504-7812



epiTRENDS
is published monthly by
the Washington State
Department of Health.
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Secretary
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